

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Complete if Known

Sheet	1	of	6
-------	---	----	---

Application Number	10/722,929
Filing Date	11/26/2003
First Named Inventor	Rynd
Art Unit	1791
Examiner Name	Wollschlager
Attorney Docket Number	25226A

U. S. PATENT DOCUMENTS

Examiner Initials*	Cite No.1	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (if any)			
		2,365,086	12/12/1944	Kamowski	
		3,574,644	4/13/1971	Olstowski et al.	
		4,301,040	11/17/1981	Berbeco	
		4,385,156	5/1/1983	Ingram et al.	
		4,996,109	2/26/1991	Krieg et al.	
		5,130,342	7/14/1992	McAllister et al.	
		5,550,170	8/1/1996	Trager et al.	
		5,679,718	10/21/1997	Suh et al.	
		5,719,199	2/17/1998	Wallace et al.	
		5,779,775	7/14/1998	Kuwabara	
		5,853,752	12/29/1998	Unger et al.	
		5,912,279	6/15/1999	Hammel et al.	
		5,993,707	11/20/1999	Chaudhary et al.	
		6,048,909	4/11/2000	Chaudhary et al.	
		6,093,752	7/25/2000	Park et al.	
		6,130,265	10/10/2000	Glueck et al.	

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No.1	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	Ts
		Country Codes-Number & Kind Codes (if known)				
		DE 199 07 663	8/24/2000	BASF		
		DE 199 10 257	9/21/2000	Schwenk		
		DE 2004 019708	11/17/2005	Stork et al.		
		EP 0 729 999	4/9/1996	Okisaki et al.		
		EP 0 863 175	9/9/1998	Hahn et al.		
		EP 01214372	12/28/2005	Duffy		

Examiner
SignatureDate
Considered

*EXAMINER Initial if reference considered whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. Applicant's unique citation designation number (optional). See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Complete if Known

Sheet	2	of	6
Application Number	10/722,929		
Filing Date	11/26/2003		
First Named Inventor	Rynd		
Art Unit	1791		
Examiner Name	Wollschlaeger		
Attorney Docket Number	25226A		

U. S. PATENT DOCUMENTS

Examiner Initials*	Cite No. 1	Document Number Number-Kind Code ⁽¹⁾	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		6,133,333	10/17/2000	Chaudhary et al.	
		6,174,471	1/16/2001	Park et al.	
		6,197,233	3/6/2001	Mason et al.	
		6,213,540	4/10/2001	Tusim et al.	
		6,231,795	5/15/2001	Chaudhary et al.	
		6,242,540	6/1/2001	Crevecoeur et al.	
		6,340,713	1/22/2002	Gluck et al.	
		6,350,789	2/26/2002	Miller et al.	
		6,355,341	3/12/2002	Chaudhary et al.	
		6,362,242	3/26/2002	Gluck et al.	
		6,387,968	5/14/2002	Gluck et al.	
		6,417,240	7/9/2002	Park	
		6,420,442	7/16/2002	Dietzen et al.	
		6,521,672	2/18/2003	Gluck et al.	
		2001/0036970	11/1/2001	Park	
		2002/0041955	4/11/2002	Watanabe et al.	

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. 1	Foreign Patent Document Country Code ⁽¹⁾ Number + Kind Code ⁽¹⁾ (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	To
		EP 0515125	11/25/1992	York		
		EP 0675918	9/27/2000	Reedy et al.		
		EP 0921148	2/23/2000	Eschenlauer et al.		
		EP 0922554	6/25/2003	Eschenlauer et al.		
		EP 1 205 437	5/15/2002	Osawa		
		EP 1 209 189	5/29/2002	Kresta		

Examiner Signature	Date Considered
--------------------	-----------------

*EXAMINER Initial if reference considered whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. Applicant's unique citation designation number (optional). See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Complete if Known

(Use as many sheets as necessary)

6

10/722.929

11/26/2003

Rynd

1791

Wollschlager

25226A

Examiner Initials*	Cite No.1	Document Number Number-Kind Code	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		2002/0086908	7/1/2002	Chou et al.	
		2002/0121717	9/5/2002	Chaudhary et al.	
		2002/0155270	10/24/2002	Chaudhary et al.	
		2002/0168509	11/14/2002	De Simone et al.	
		2003/0082343	5/1/2003	Brucker	
		2003/0162852	8/29/2003	Chaudhary et al.	
		2003/0175497	9/18/2003	Kobe et al.	
		2004/0167240	8/26/2004	Burgun et al.	
		2004/0209782	10/21/2004	Zhang et al.	
		2005/0048276	3/3/2005	Wilson	
		2005/0112356	5/26/2005	Rynd et al.	
		2006/0148916	7/6/2006	Loh et al.	

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No.†	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	To
		Country Codes-Number 4-Kind Codes(If known)				
		EP 620 246	10/19/1994	Algostat		
		EP 97/02457	10/10/2000	Glueck et al.		
		EP 99/04867	5/7/2002	Glueck et al.		
		WO 1999/047592	9/23/1999	Park et al.		
		WO 2000/034363	6/15/2000	Chaudhary et al.		
		WO 2000/034365	6/15/2000	Chaudhary et al.		

Considered

EXAMINER INITIAL If reference considered/other or not citation is in conformance with MPPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. Applicant's unique citation designation number (optional). See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPPEP 801.04. Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the form should be sent to the USPTO. If you have suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Complete if Known

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet

4

of

6

Application Number

10/722 929

Filing Date

11/26/2003

First Named Inventor

Rynd

Art Unit

1791

Examiner Name

Wollschlager

Attorney Docket Number

25226A

U. S. PATENT DOCUMENTS

[illegible]

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No.1	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	T ₆
		Country Codes-Number s-Kind Codes (if known)				
		WO 2004/065461	8/5/2004	Lee et al.		
		WO 2004/067577	8/12/2004	McDonald et al.		
		WO 2004/078785	9/1/2004	Moad et al.		
		WO 2005/054349	6/16/2005	Rynd et al.		
		WO 2006/009945	1/26/2006	Hagerty et al.		
		WO 2006/009980	1/26/2006	Lin et al.		

Examiner Signature		Date Considered	
-----------------------	--	--------------------	--

EXAMINER Initial If reference considered neither or not citation is in conformance with MPPEF 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. Applicant's unique citation designation number (optional). See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPPEF 901.04. Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 is possible. Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time to complete this form, or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, 500 Capitol Mall, Alexandria, VA 22313-4500. Do not send fees or completed forms to this address. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Complete if Known

(Use as many sheets as necessary)

Application Number	10/722,929
Filing Date	11/26/2003
First Named Inventor	Rynd
Art Unit	1791
Examiner Name	Wollschlaeger
Attorney Docket Number	25226A

[illegible]

Examiner Initials*	Cite No.1	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Appear	To
		Country Codes-Number &-Kind Codes (If known)				
		WO 2006/073712	7/13/2006	Loh et al.		
		WO 2008/005022	1/10/2008	Loh et al.		
		WO 97/31053	8/28/1997	Karande et al.		
		WO 98/03581	1/29/1998	Creazzo et al.		
		WO 99/31170	6/24/1999	Chaudhary et al.		

Date
Considered

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO

Complete if Known**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Sheet **6** of **6**

Application Number	10/722,929
Filing Date	11/26/2003
First Named Inventor	Rynd
Art Unit	1791
Examiner Name	Wollschlager
Attorney Docket Number	25226A

NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. 1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T*
		International Search Report PCT/US2005/045291 dated 5/12/2006	
		International Search Report PCT/US2006/035056 dated 2/20/2008	
		International Search Report PCT/US2008/058543 dated 7/23/2008	
		Zhang, et al., Preparation and Combustion Properties of Flame Retardant SBA Copolymer/Graphite Oxide Nanocomposites, Macromol, Mater Eng., March 2004, 289, 355-59.	
		Cassegneau, et al., Preparation and Characterization of Ultrathin Films Layer-by-Layer Self Assembled from graphite Oxide Nanoplatelets and Polymer, Langmuir, 2000, 16, 7318-24.	
		Guo-Hua Chen, Da-Jun Wu, Wen-Gui Weng and Wen-Li Yan; Dispersion of Graphite Nanosheets in a Polymer Matrix and the Conducting Property of the Nanocomposites; Polymer Engineering and Science, Dec. 2001, Vol 41, No. 12; pp 2148-54.	
		Pan, Y.X., Yu, Z.Z., Ou, Y.C., Hu, G.H.; A new process of fabricating electrically conducting nylon 6/graphite nanocomposites via intercalation polymerization, Journal of Polymer Science: Part B: Polymer Physics, 38, 1626-1633 (2000).	
		Xiao, P., Xiao, M., Gong, K.; Preparation of exfoliated graphite/polystyrene composite by polymerization-filling technique, Polymer, 42, 4813-4816 (2001).	
		Chen, G.H., Wu, D.J., Weng, W.G., Yan, W.L., Preparation of polymer/graphite conducting nanocomposite by intercalation polymerization, Journal of Applied Polymer Science, 82, 2506-2513 (2001).	
		Uhl, F.M. and Wilkie, C.A., Polystyrene/graphite nanocomposites: effect on thermal stability, Polymer Degradation and Stability, 76, 111-122 (2002).	
		Modesti, M., Lorenzetti, A., Simioni, F., Camino, G., Expandable graphite as an intumescent flame retardant in polyisocyanurate-polyurethane forms, Polymer Degradation and Stability, 77, 195-202 (2002).	
		Drzal, L.T. and Fukushima, H., Graphite nanoplatelets as reinforcements for polymers, Polymers Preprints (American Chemical Society, Division of Polymer Chemistry) 42 (2), 42-43 (2001).	

Examiner
SignatureDate
Considered

EXAMINER: Initial if reference considered whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. Applicant's unique citation designation number (optional). *See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. *Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). *For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. *Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.